Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A printhead having a circuit with plural resistors and a power source, comprising:

a metal stack formed within the circuit and comprised of a first metal layer comprising a power bus coupled to the power source and a second metal layer having a portion that comprises ~~forms~~ the resistors; and

at least one power via formed within the circuit as an interface between the first metal layer and the second metal layer, wherein, at the power via, ~~including~~ the second metal layer comprises [~~as~~] a separation barrier located adjacent the first metal layer and between ~~the~~ at least one resistor of the plural resistors and the power bus ~~source~~.

2. (Currently Amended) The ink jet printhead of claim 1, further comprising a controller bus that is connected ~~to controller vias that are connected~~ to the at least one resistor ~~resistors~~ at a controller via.

3. (Original) The ink jet printhead of claim 1, wherein the circuit is a thin film circuit and the first metal layer is comprised of Aluminum Copper Silicon.

4. (Original) The ink jet printhead of claim 1, wherein the circuit is a thin film circuit and the second metal layer is comprised of Aluminum and Tantalum Aluminum.

5. (Currently Amended) The ink jet printhead of claim 4, wherein a first portion of the Tantalum Aluminum [is] comprises the corresponding at least one of the resistors and a second portion of the Tantalum Aluminum connects the corresponding at least one of the resistors to the power bus.

6. (Currently Amended) The ink jet printhead of claim 1, wherein ink corrosion is terminated by the separation barrier at the power via.

7. (Currently Amended) The ink jet printhead of claim 1, wherein the plural resistors comprise a set of resistors, wherein for [~~a~~] the set of resistors, power is routed from the power bus through [~~the~~] a plurality of corresponding power vias to each resistor of the set of resistors.

8. (Currently Amended) The ink jet printhead of claim 2, wherein the plural resistors comprise a set of resistors, wherein for [~~a~~] the set of resistors, power is routed from [~~the~~] each resistor of the set of resistors to [~~the~~] corresponding controller vias.

9. (Currently Amended) The ink jet printhead of claim 1, wherein each resistor of the plural resistors is associated with at least one power via that separates metal of the resistor from the power bus.

10. (Currently Amended) In an ink jet printhead, a method for increasing resistance to ink corrosion of a thin film circuit having a portion defined by at least one thin film resistor, the method comprising:

connecting a power bus ~~source~~ to the at least one thin film resistor with a power via; and

substantially preventing spreading of the ink corrosion from the thin film resistor to [~~a~~] the power bus ~~source~~ with a separation barrier portion of the power via.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The method of claim 10, further comprising routing power from the at least one thin film resistor[~~s~~] to ~~the~~ at least one controller via[~~s~~].

14. (Original) The method of claim 10, wherein protecting the power bus from ink exposure includes terminating ink penetration at the power via.

15. (Currently Amended) The method of claim 10, further comprising providing a metal stack made of a first metal layer and a second metal layer, forming an interface between the first metal layer and the second metal layer, and creating a separation barrier between the conductive portions of the thin film resistors and the power bus, wherein the interface between the first metal layer and the second metal layer comprises the power via and the separation portion comprises the separation barrier portion of the power via.

16. (Original) The method of claim 15, wherein the first metal layer is comprised of Aluminum Copper Silicon, the second metal layer is comprised of Aluminum and at least one of Tantalum Aluminum, Tungsten Silicon Nitride, or Tantalum Nitride which provides corrosion resistance and connects the Aluminum to the power bus.

17. (Currently Amended) A method of manufacturing a circuit for an ink jet printhead, the circuit having plural resistors, a power bus and a controller bus, the method comprising:

creating conductive trace routes from the power bus to power vias associated with each resistor and creating conductive trace routes from the power vias associated with each resistor to each resistor and from the controller bus to controller vias associated with each resistor and creating conductive trace routes from the controller vias associated with each resistor to each resistor; and

creating a separation barrier ~~within the power via~~ to substantially prevent spreading of [~~the~~] ink corrosion from the resistors to the power bus and the controller bus, wherein the separation barrier comprises separation barrier portions within the power vias.

18. (Currently Amended). The method of claim 17, wherein the separation barrier portions comprise a non-corrosive metal and the conductive trace routes from the power

vias associated with each resistor to each resistor comprise a corrosive metal ~~providing a conductive routing scheme includes producing power vias that are defined by a conductive metal and a non-corrosive metal of the resistor~~.

19. (Currently Amended) The method of claim 17, wherein substantially preventing spreading of the ink corrosion from the resistors to the power bus and the controller bus comprises ~~protecting the power bus with the power vias includes~~ separating a corrosive metal portion of the conductive trace routes from the power vias associated with each resistor to each resistor from the power bus by the separation barrier.

20. (Currently Amended) The method of claim 17, wherein the circuit is a thin film circuit and includes a metal stack comprised of a first metal layer and a second metal layer, wherein the second metal layer is conformed with the power vias and the controller vias and wherein the separation barrier portions comprise second metal layer portions in the power vias and in the controller vias ~~that form an interface between the first metal layer and the second metal layer~~ and wherein at least one power via ~~forms~~ has a separation barrier portion between [~~the~~] a conductive portion ~~portions~~ of [~~the~~] a conductive trace route from the at least one power via to the resistor ~~resistors~~ and the power bus.

21. (New) A fluid ejection device comprising:

a first metal layer comprising a portion for providing power to a resistor;

a non-metal portion overlying the first metal layer and comprising a via;

a second metal layer overlying the non-metal layer, conformed with the via and comprising a top conductive layer portion over a bottom layer portion, wherein the bottom layer portion comprises a resistor and an electrical connection portion, wherein the first metal layer is electrically connected to the electrical connection portion of the bottom layer portion at the via.

22. (New) The fluid ejection device of Claim 21, wherein, at the via, the first metal layer is separated from the top conductive layer portion by the electrical connection portion of the bottom layer portion.

23 (New) The fluid ejection device of claim 21, wherein the electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer.

24. (New) The fluid ejection device of claim 21, wherein the first metal layer comprises Aluminum Copper Silicon.

25. (New) The fluid ejection device of claim 21, wherein the top conductive layer portion comprises Aluminum and the bottom layer portion comprises Tantalum Aluminum.

26. (New) A fluid ejection device comprising:

a first metal layer comprising a portion for providing power to at least first and second resistors;

a non-metal portion overlying the first metal layer and comprising first and second vias corresponding to the first and second resistors;

a second metal layer overlying the non-metal layer, conformed with the first and second vias and comprising a top conductive layer portion over a bottom layer portion, wherein the bottom layer portion comprises first and second resistors and first and second electrical connection portions corresponding to the first and second resistors;

wherein the first metal layer is electrically connected to the first electrical connection portion at the first via and the first metal layer is electrically connected to the second electrical connection portion at the second via.

27. (New) The fluid ejection device of Claim 26, wherein, at the first via, the first metal layer is separated from the top conductive layer portion by the bottom layer

portion, and, at the second via, the first metal layer is separated from the top conductive layer portion by the bottom layer portion.

28. (New) The fluid ejection device of claim 26, wherein the first electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer and the second electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer.

29. (New) The fluid ejection device of claim 26, wherein the first metal layer is comprised of Aluminum Copper Silicon.

30. (New) The fluid ejection device of claim 26, wherein the top conductive layer portion comprises Aluminum and the bottom layer portion comprises Tantalum Aluminum.

31. (New) A printhead comprising:

a top metal layer comprising a top conductive layer portion over a corrosion-resistive layer portion, wherein the corrosion-resistive layer portion comprises a resistor portion and an electrical connection portion;

a bottom metal layer for connecting a power source to the top metal layer, wherein the bottom metal portion is electrically connected to the top metal layer at the electrical connection portion and the electrical connection portion comprises a corrosion barrier between metal layer and the power conducting portion.

32. (New) The printhead of claim 31, further comprising:

a non-metal layer between the top metal layer and the bottom metal layer and comprising a via, wherein the top metal layer is conformed with the via and the bottom metal layer is electrically connected to the top metal portion through the electrical connection portion at the via.

33. (New) A fluid ejection device for ejecting a fluid, comprising:

a primitive group comprising a plurality of resistors;

a first conductive metal layer comprising a power supply portion for providing a common supply of electrical power to the plurality of resistors;

a second metal layer comprising a top conductive layer portion and a bottom layer portion, wherein the bottom layer portion comprises the plurality of resistors and a plurality of electrical connection portions corresponding to the plurality of resistors, wherein the second metal layer is connected to the first conductive metal layer portion at the plurality of electrical connection portions.

34 (New) The fluid ejection device of claim 33, wherein the top conductive layer portion is susceptible to corrosion upon contact with the fluid and the bottom layer portion resists the corrosion.

35. (New) The fluid ejection device of claim 34, wherein the electrical connection portion comprises a corrosion barrier between the power supply portion and the top conductive portion.

36. (New) A method of manufacturing a fluid ejection device, comprising:

providing a first metal layer comprising a power bus and a FET bus;

providing the second metal layer, the second metal layer comprising a conductive layer portion and a corrosion-resistant layer portion;

providing a first electrical connection between the power bus and the second metal layer and a second electrical connection between the second metal layer and the FET bus, wherein the first and second electrical connections are made through the corrosion-resistant layer portion.

37. (New) The method of claim 36, further comprising providing a via between the first metal layer and the second metal layer, wherein a portion of the corrosion-resistant layer portion at the via comprises a corrosion separation barrier.

38. (New) The method of claim 37, wherein the via comprises a power via.

39. (New) The method of claim 37, wherein the via comprises a FET via.